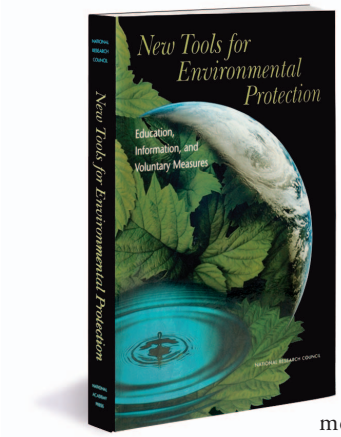

New Tools for Environmental Protection: Education, Information, and Voluntary Measures

Edited by Thomas Dietz and Paul C. Stern
Washington, DC:National Academy Press, 2003. 356 pp. ISBN: 0-309-08422-9, $55 paper.

This book resulted from a workshop convened in November 2000 by the National Research Council Committee on Human Dimensions of Global Change. The "new tools" are seen as an evolving set of alternatives or supplements to strategies that have dominated environmental protection policy.

The authors examine the proposition that alternatives to the earlier "command and control" regulatory strategies are needed to address the changing nature of environmental pollution, with a shift from large "point sources" to more diffuse sources, a shift from a manufacturing-based to a service-based economy, and changes in the political climate that make the use of earlier strategies increasingly difficult. The book's rich and diverse 21 chapters review and critically examine what is known about the potential importance and effectiveness of education, information, and voluntary measures in environmental protection.

The editors refer to approaches that are neither "command-and-control" or "market-based" as "new tools"; however, the "new tools" are not necessarily new. Although command-and-control and market-based approaches have dominated U.S. environmental policy, alternatives have been used over the past decades, exemplified by environmental education of students and the public since the 1960s, information-based programs on energy conservation with home energy audits since the 1970s, the environmental impact assessment provisions of the U.S. Environmental Policy Act of 1969, and the Emergency Planning and Community Right-to-Know Act of 1986. Several plans to stimulate voluntary actions by industry were advanced in the 1990s by the U.S. Environmental Protection Agency and the U.S. Department of Energy.

Environmental policies are classified as command-and-control, market-based, education, provision of information, and voluntary measures, with the first two dominant in environmental policy over the past 25 years and the latter three representing the new tools. The "old tools" impose external controls on behavior and specific tangible sanctions for noncompliance, whereas the new tools rely more on implicit sources of behavior control, with the resulting behavior perceived as voluntary.

All new tools have one or both of two features: They use education and the provision of information to try to change behavior, and the changes in behavior are voluntary. Education is described as adding to the simple provision of information a systematic and structured way to develop values and behavioral norms. Voluntary measures, as described, encompass a range of agreements, say, between regulatory agencies and private firms, among firms in an industry, and voluntary actions across firms.

Besides an excellent synthesis of the multidisciplinary relevant literature, the editors review the effectiveness of the new tools to identify gaps in knowledge, to indicate priorities for research funding, and to guide individuals who design and manage environmental policies and programs. The key concepts addressed are the role of education and the use of incentives to effect voluntary measures.

What becomes evident is that even though education and information programs do not answer every environmental policy need, they are essential in developing flexible and sustainable environmental policies. In the concluding chapter the authors argue that it is time to move beyond debates about which tool is best for environmental protection; as suggested by Stern (Chapter 12), the best environmental policy normally uses a combination of tools, each serving a particular function.

This valuable review of current knowledge on the use of these new tools emphasizes the need to develop a better understanding of the functions performed by each type of policy tool as well as combinations of policy tools to develop flexible and robust environmental policies. The limited knowledge available on the effectiveness of these tools individually and in combinations argues for the need to incorporate an evaluation component into every environmental policy program.

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Nick Lane
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